

697.5

**Power Plumbing
Heat Piping
Light Ventilating**

and

**General
Mechanical Equipment
For Buildings**

**Co-ordinated
By One Organization at One
Overhead with Undivided
Responsibility**

†

Published by

**PHILADELPHIA
STEAM HEATING COMPANY
1315 Cherry Street
Philadelphia**

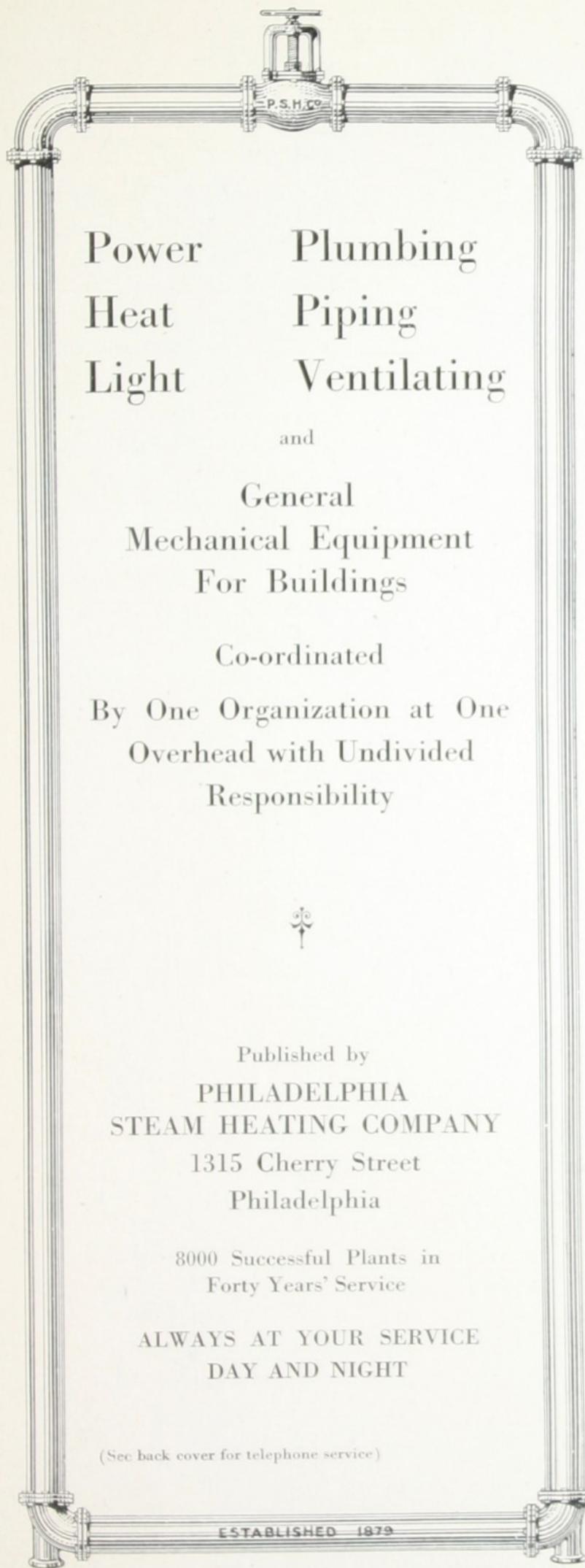
8000 Successful Plants in
Forty Years' Service

**ALWAYS AT YOUR SERVICE
DAY AND NIGHT**

(See back cover for telephone service)

ESTABLISHED 1879





Power Plumbing
Heat Piping
Light Ventilating

and

General
Mechanical Equipment
For Buildings

Co-ordinated

By One Organization at One
Overhead with Undivided
Responsibility



Published by
**PHILADELPHIA
STEAM HEATING COMPANY**
1315 Cherry Street
Philadelphia

8000 Successful Plants in
Forty Years' Service

ALWAYS AT YOUR SERVICE
DAY AND NIGHT

(See back cover for telephone service)

ESTABLISHED 1879

The Name

Philadelphia Steam Heating Company

Conveys the idea that we do heating work only, while, as a matter of fact, all the important branches that are required for the **general mechanical equipment of buildings** are handled by our different departments at one overhead expense.

Established in 1879, we first engaged in the steam heating business exclusively. Gradually the scope of our work enlarged to fill our customers' demand for service in additional lines. Steam Engineering is but one of the several important branches of the mechanical equipment of modern buildings, and is so closely allied with Electric, Plumbing, General Piping and Sheet Metal Work that it is decidedly convenient and economical for the buyer to deal with one constructive organization in all these lines. This co-ordinating method avoids the worry and danger of dividing the responsibility in placing orders with several contractors for the different lines to be installed, especially when the work is so inter-tied that the lines of demarcation are indefinite.

We combine the Engineering, Supply and Construction branches in the following mechanical lines:

New Installations, Betterments, Repairs

Boiler Blowers for Increasing Draft
Exhaust Steam Utilization
Electric Motors, Generators, Wiring and
Lighting
Electric Freight Elevators
Fans and Blowers
Fuel Economizers
Heating Systems of all kinds
Heat Regulators
Insulation and Pipe Covering

Philadelphia Steam Heating Company

Pipe Bending

Piping for power plants and general duties

Pipe, Fittings and Valves for all duties

Plumbing and Drainage

Power Plant Equipment

Repair and Reconstruction Work

Steam, Plumbing and Electrical Supplies

Stationary Vacuum Cleaners

Sheet Metal Work

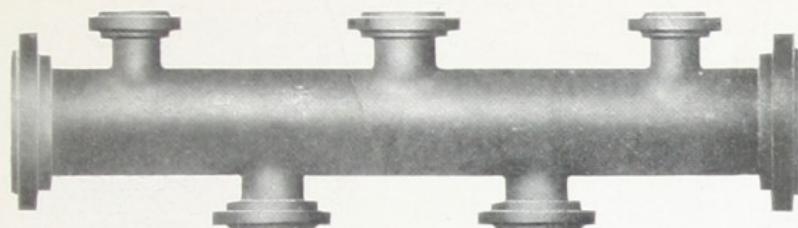
Ventilating

Water Supply Systems

Water Meters

Water Heaters

Welding—oxy-acetylene method



Power Plant Equipment

The ever increasing demand for economical power has effected great forward strides in the engineering features connected with the construction of the modern plant.

High pressure is the factor in a power plant which requires that great care must be exercised in plant construction. The boilers, engines, pumping machinery and other apparatus must be set and piped with the utmost exactitude. The equipment must be selected and arranged with a view to furnishing the maximum power at the minimum cost of operation. The great strains must be provided for, and the safety of the plant constantly maintained. All this requires a combination of engineering, manufacturing and constructive skill of the highest order.

Our Power Construction Department keeps pace with the latest improvements. **We erect the complete plant**, piped and left in operation for any desired pressure or duty.

Power plant operating economies may be effected in various ways. The pre-heating and purifying of the boiler feed water, the profitable use of exhaust steam, the utilization of hot condensation as feed water, are some of the important points that must be covered in designing and erecting the plant. Considering that only a very small percentage of the original heat energy is used by the prime movers, it follows that nearly all of the first value remains in the exhaust steam. This may be utilized in various ways—heating the building in winter; heating the feed water for the

boilers; and for a multitude of other purposes for which steam is needed in almost every building. Our Power Plant Department has made a study of all the intricacies of this branch, and each installation is treated individually, bearing in mind its peculiar requirements.

Welding and Pipe Fabricating Department

The Welded Pipe Joint is slowly but surely superseding the old threaded or screwed joint. Welded pipe work has great strength—double that of threaded pipe—and once made tight never leaks. In welded connections, the original thickness of the metal is not only retained but is built up, whilst threading reduces the original thickness of the metal. In welded work, branches may be made at any angle, or in any shape, avoiding the complex threaded pipe connections and shoulders at fittings, which always produce excessive friction in tortuous runs.

Our welded work is performed by the oxy-acetylene process, which, while it requires expensive apparatus, is superior to any other method. Only the most experienced welders are employed, and every job is subjected to the most critical tests and inspection.

We are prepared to design, fabricate and erect piping work for you in any form, for any service.

Steel Headers, with welded-in Nozzles

Welded Pipe Shapes in any special form desired

Welded Pipe Connections to Tanks, etc.

Leaky Riveted Tank Seams repaired by welding

Pipe Bends—expansion, offset, cross-over bends, etc.



Flanges of all types in cast iron, cast steel,
semi-steel and forged steel.

We will Weld anything in metal
Broken Castings, etc., welded

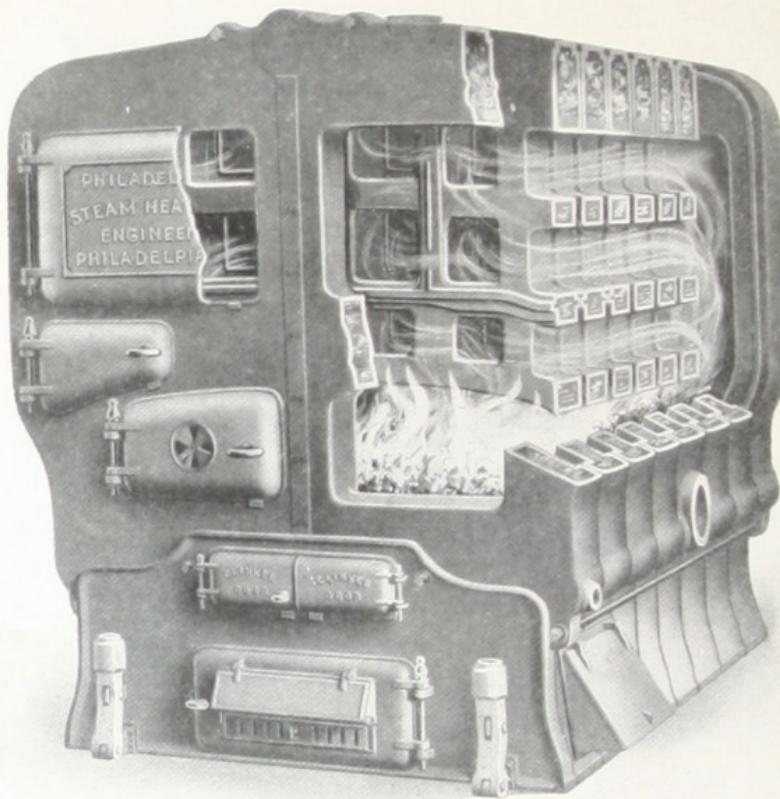
General Piping Work

We believe we have the best equipped piping organization in Philadelphia. It is the result of forty years' continuous practical experience in all kinds of piping, for all duties.

Our work is of the best, our service is prompt, the cost to the buyer is fair and reasonable.

To give an idea of our service in this department, three very large mercantile and manufacturing concerns who have operated their own pipe fitting organizations for many years have discontinued doing this work themselves and have given us the contract for all of their piping work. The advantage of using our organization is that it is elastic; it can be easily increased, reduced, or stopped at any time, whilst with your own organization there are always, you know, pipe fitters on the pay-roll whether pipe fitting is needed or not.

**Special yearly contract rates to large users.
This service will save you money.**



Heating

Tomes have been written on this subject, covering the merits of various systems and apparatus, and yet the whole subject boiled down into a few words may be expressed—

The System and its
Adaptability }
plus }
Technical Knowledge } equals
plus }
Practical Experience }
A Successful
Heating Plant

Successful Heating Plants are obtained only by following the recommendations of expert, unbiased heating engineers and taking advantage of their technical knowledge and experience.

The high price of coal more than ever emphasizes the necessity for a permanently efficient and economical heating plant. The failure to get this result is generally occasioned by the dangerous method of getting numerous esti-

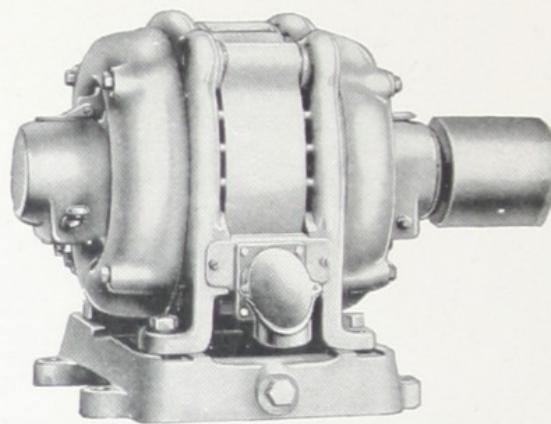
Always at Your Service—Day and Night

mates and selecting the low bidder, without taking into consideration the responsibility and knowledge of the heating contractor.

We offer you the services of a skilled Engineering Corps and an experience secured in the installation of over 8000 successful plants in forty years' continuous service.

Whether it may be a system of Steam, Hot Water, Vacuum, Vapor, Atmospheric, Fractional or Hot Air, there is but one of them best adapted to your building. Our experts will assist you in selecting the right apparatus for your requirements.

We make a feature of **expert reports** on Defective Heating Apparatus. At your request, we will have a heating engineer make a careful examination of your apparatus and make recommendations for correcting the defects. A fair charge, covering the engineer's time and expense, is made for this service, but this charge is canceled if our Construction Department secures your order for the work.

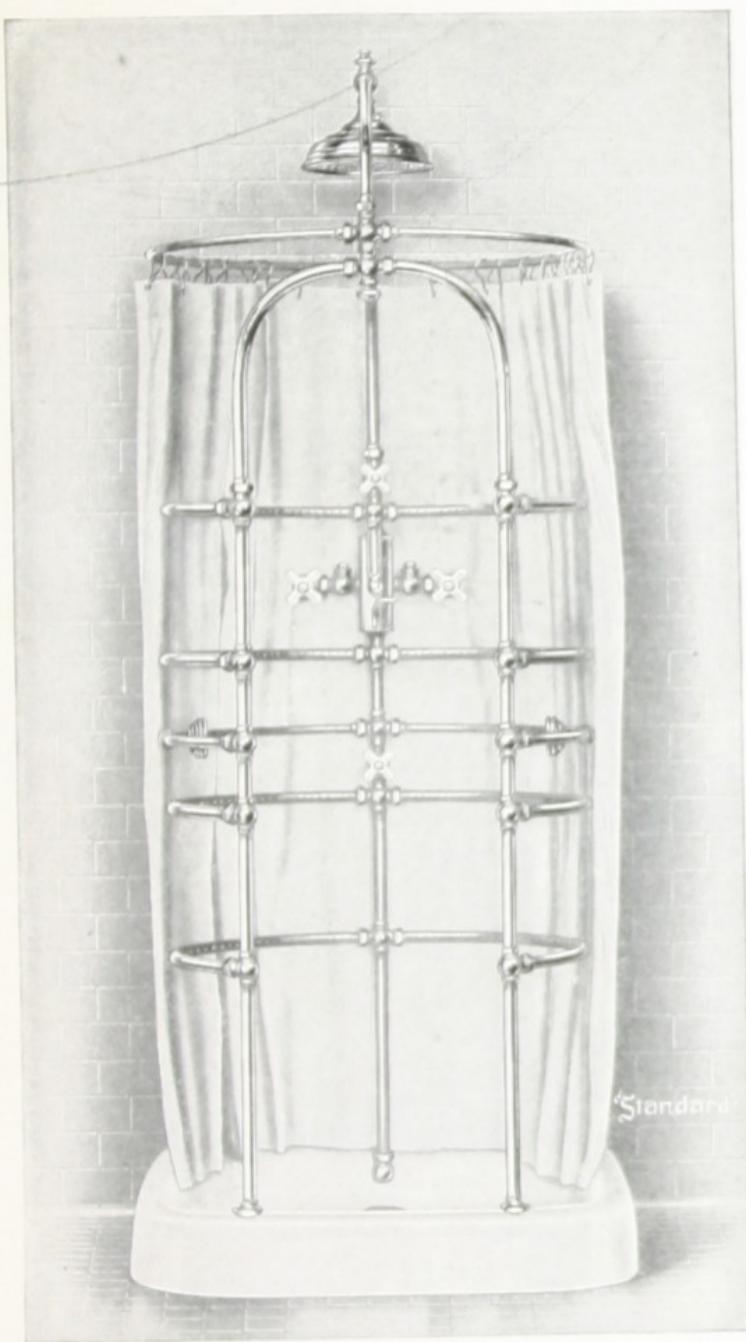


Electric Construction

Our Electric Department is under the management of **Mr. Thomas L. Barker**, one of Philadelphia's most capable Electrical Engineers. We are in position to furnish our clients with everything in the electric line, embracing Generating Plants, Power Transmission, Motor Drives, General Wiring Work, Lighting, Telephone and Signal Systems, Time Clock Systems, etc.

Electric signs of any design built and erected in place. As we construct all our sheet metal and steel framing work in our own shops we can quote specially favorable prices on electric sign equipment.

We are fully equipped to repair electric apparatus, including General Motor Repairs, in short, execute any order for electric equipment, installation or repairs. This department furnishes the same excellent service for which our other departments are so favorably known.



Plumbing Drainage Water Supply

Our plumbing department, under the management of Mr. Geo. J. Monahan, is so well equipped that we are as efficient on the small repair job as on the big contract. Quick and effective service is the underlying principle of our business.

The illustration at top of this page pictures a separate Shower Bath Fixture. This is but

Philadelphia Steam Heating Company

one of the many necessary plumbing fixtures for a modern house. The shower is coming to be recognized as the most sanitary and convenient way to bathe. Bath tubs, no doubt, are essential, but the lack of a convenient way to rinse the soapy residue after the bath doesn't appeal to the hurried morning bather.

There is a wonderful and varied selection of Plumbing Fixtures made by the various manufacturers; like heating systems, they have their peculiar adaptabilities, and are distinctly different for dwellings, apartments, hotels, hospitals, offices, factories, etc. Our experts will assist you in selecting the proper fixtures for your new building.

Use us for your plumbing needs. Anything from a faucet washer to a Town Water System.

Plumbing Fixtures:

Bath tubs	Bidets
Receptors	Drinking fountains
Showers	Pantry sinks
Lavatories	Slop sinks
Closets	Wash sinks
Laundry trays	Urinals
Hot water tanks	Tank heaters
	Laundry heaters

and every variety of fixtures for dwellings, office buildings, factories, schools and hospitals.

Complete plumbing installations
Water supply systems
Artesian wells
Pumping apparatus
Drainage and sewage systems
Gas fitting



Fan Installations For Ventilating, Cooling, Drying, Dust Removal, etc.

There are hundreds of applications for our
MOTOR DRIVEN PROPELLER FAN

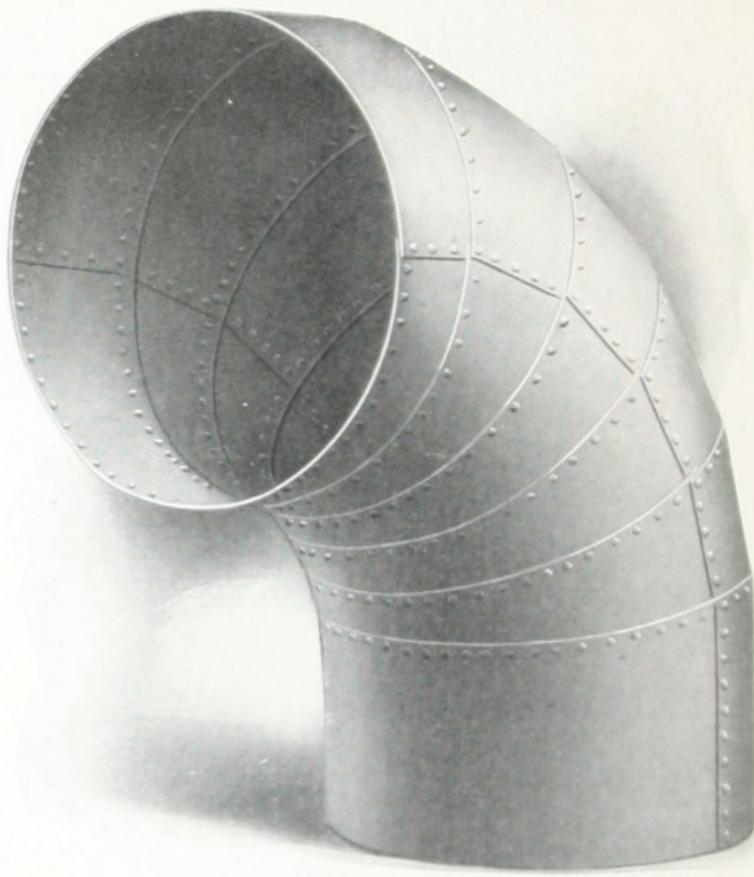
These fans are made in all sizes and capacities and are suitable for ventilating and cooling

Offices	Stores
Auditoriums	Workshops
Kitchens	Factories
Boiler Rooms, Etc.	

in fact, every place where ventilation is needed. They are made in sizes from 12" to 72" in diameter, equipped with direct connected motor, for any type or current voltage. They range in capacities from 1000 cubic feet to 100,000 cubic feet per minute. They require a very small amount of power in proportion to the great quantity of air handled and may be used either with or without duct work.

If you contemplate ventilating work of any character, ring us up and we will have a Ventilating Engineer call, figure your requirements and quote you on suitable apparatus.

An investment in good air pays big dividends in good health, increased efficiency and produces that general feeling of well-being in both you and your workers.



Sheet Metal Work

A fully equipped **sheet metal shop** is an important feature of our business. We are workers in sheet iron, steel, brass and copper, embracing everything in sheet metal, including Ventilating Duets, Heat Flues, Smoke Pipes, Stacks, Tanks, Pans, Containers, Fans, Blowers, Drying, Dust Removal, Metal Roofing, Gutters, Spouts, Special and Experimental Work.

**IMMEDIATE SERVICE ON BREAKDOWN
OR RUSH ORDERS.**

Jobbing and Repairs

A good Jobbing Shop for Maintenance Service is one of the essentials of a mechanical business. The best original installation in time requires adjustments, repairs, renewals, or perhaps extensions to meet new conditions. A real Jobbing Shop requires an organization embracing enough experienced and specially trained men, and a large and varied stock of supplies and repair parts, in order to give immediate and effective service.



A customer with a break that closes down the power, shuts off the heat, floods the building with water, or cuts off light or motor service, will not willingly wait the pleasure of a dilatory repair man. Our Jobbing Shop will give you immediate service and efficient results at a moderate price.

Nearly 3000 customers secured, pleased and held in our forty years' business life, are back of our statement.

Our jobbing is not confined to installations originally made by us, but covers any make of apparatus for which new parts are in the market for

Power Plant	Plumbing
General Piping Work	Electric, etc.
Heating	Sheet Metal Branches

Term Contracts for Jobbing Repairs

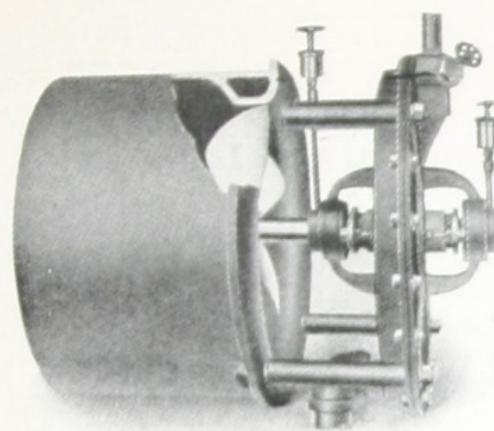
Trust companies, real estate agents and owners controlling a large number of properties will find it convenient and economical to make use of our term contract plan for maintenance service, including jobbing repair work, alterations, additions, renewals, etc.

We accept such contracts on a basis of actual cost plus a small commission consistent with the large yearly volume of work executed. We would especially call attention to the convenience of placing with one firm your yearly orders covering practically all of the lines which are embraced in the general mechanical equipment of buildings.

By reason of our long training and valuable experience in this special field, our Jobbing and Repair Department gradually developed into an organization particularly well adapted to handle this important branch of the business.

The successful repair shop must be able not only to give prompt service, but must be able to get right at the business in hand in an intelligent manner, so that the work can be done thoroughly with the least expenditure of labor and materials.

Our repair men are highly skilled artisans in their various trades, and with the largest warehouse stock of replacement parts in Philadelphia, good service is always at your command, Day and Night.



Boiler Blowers

For increasing draft, making possible the successful use of lower grades of fuel and increasing boiler capacities.

Fuel Conservation demands more efficient methods in burning coal. When fuel was plentiful and low priced, there was unquestionably an enormous waste, which, under the present scarcity every user is interested in stopping.

For Your Power Boiler there is nothing that will effect greater economy than a steam turbine blower.

The high points of advantage are:

1. Increased amount of air passing through the fuel bed, giving better combustion.
2. As the air pressure is produced in the ashpit, draft losses in setting are eliminated.
3. Will increase boiler capacity from 20 to 50%.
4. **Lower grades of fuel can be used, which means Great Economy.**
5. Provides a wonderful means of controlling the quantity of steam produced to quickly correspond with varying loads.

6. More steam for every dollar expended for coal.
7. May be used either with or without automatic damper regulator control.

We will gladly quote you prices for your particular needs if you will give us the following information:

1. Type, number and H. P. rating of boiler.
2. Pressure used.
3. Grade of fuel.
4. Is damper regulator employed?

Blowers for Low Pressure Heating Boilers

Turbine blowers are not applicable for lower steam pressures than 20 lbs. For low pressure heating boilers, we provide blowers equipped with electric motors.

The following information will be needed to quote intelligently on blowers for low pressure boilers:

1. Name of manufacturer, size and number of boiler.
2. Size and height of chimney.

Our recommendations are backed by the knowledge accumulated in forty years' continuous service and the construction of over 8000 successful plants. May we help you with your fuel problems?

A Heat Regulator

That Is Adapted to All Kinds of Heaters and Heating Systems—Holds the Heat Where You Need it and Saves Fuel

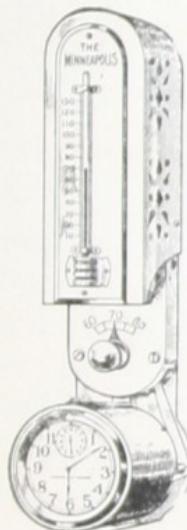
Our regulator is a combination of a thermostat equipped with a time draft device which is placed in a part of the building where an average temperature is maintained, and a

motor which is placed adjacent to the heater or other heating device which is to be controlled.

In operation, the thermostat is adjusted to carry any desired temperature between 60 and 80 degrees. For instance, if a temperature of 68 degrees is desired, the indicator dial is set at that point. A rise or fall in temperature of one degree above or below operates the motor, which in turn closes or opens the drafts on the heater.

The time draft attachment is used for turning the heat on in the morning if it is desired to save fuel by having a cool house at night. For example, the indicator may be set back to 60 degrees, and the thermostat will hold the house at that temperature during the night. In the morning, say one hour before rising time, the clock attachment automatically turns the thermostat to the regular day-time temperature.

These heat regulators not only insure a comfortable house by maintaining an even temperature, but they are immensely valuable in saving fuel. Great quantities of fuel are wasted in overheating buildings. Without a regulator, the usual process of operating a heating plant is to crowd on all the draft and rush the fire until the house becomes overheated and the fuel bed is burned out to such



an extent that the house becomes cold before sufficient heat can be again raised. Thus, the house temperature correspondingly see-saws during the entire day—too hot and too cold. The **Philadelphia Regulator** entirely overcomes this difficulty. When the house is just warm enough, the heat source is cut off; when the cooling process again begins, the heat is turned on. Hence, the added comfort and fuel saving.

The **No. 47 regulator** is provided with a one-day time clock. The price of this machine, installed complete, is \$67.50. The No. 60 regulator is provided with an eight-day clock. The price of this apparatus, installed complete, is \$79.00. Both of these machines are equally efficient and well constructed, the difference being that the clock with the No. 60 machine requires winding but once a week. Both machines are provided with a spring motor, which requires winding approximately twice a week.

We also furnish non-winding machines which are operated by an electric motor, the current for which may be taken from the lighting system. Heat regulators so equipped are more expensive than the spring motor machines, and the prices vary according to the cost of installation. Prices will be quoted on this machine on application.

Central Heating Plants

Where heat is supplied from a central heating plant, the temperature of the building can be controlled by using a balanced valve on the steam supply main, controlled by a heat regulator. This application not only prevents overheating but effects a very large saving in steam consumption and consequently bills for steam service.

Special prices upon application:

The Fixed Contract Compared with The Commission Method

Many shrewd and careful buyers, who have tried both methods, are placing orders for mechanical equipment on a commission basis. The enormous and unprecedented advance in the cost of materials, and the uncertainty as to the length of time these conditions will exist, has brought to the minds of all buyers the need of a **more flexible purchasing contract**.

Every one who has had experience knows that the flat contract system is not always a satisfactory method of purchasing this class of work. It is a very difficult matter to incorporate clauses in a contract that will cover all of the various uncertainties that may arise during the progress of construction. Often it is desirable to omit certain items and add others and make changes from time to time that seriously affect the contract price. It is hard indeed to make these adjustments so that they will satisfactorily meet the views of both parties to the contract. In many building trades the quantities required in the construction of the work can be calculated to a nicety, but to estimate the cost of intricate mechanical work has always been more or less of a gamble.

Many uncertainties must be covered in computing the value of materials and labor which enter into the construction of **Power, Heating, Ventilating, Plumbing and Electric Equipment**. "Estimates" may be made upon such work on which contract proposals are based, but they are just what the word implies, an opinion or approximation that so much material and labor will be required.

The flat contract transaction for mechanical equipment is, therefore, one of mere chance. There are often important items which are not accurately covered by the agreement. The bid-

Philadelphia Steam Heating Company

ding contractors, in order to eliminate as much uncertainty as possible, generally make some allowance in estimating to cover such contingencies, which means that the buyer must pay the expense, whether the contingency develops or not.

Then there are contractors who, under the whiplash of sharp competition, take long chances in bidding, and if they close a contract at a loss generally try to recover, as the tendency of this class of contractors is to recoup losses by substituting cheaper materials and cutting costs wherever they can, to the detriment of efficiency.

While the commission basis has everything to commend it, the success of the plan, from the purchaser's standpoint, is entirely dependent upon the selection of a **responsible firm of unquestioned integrity**, having the capital to purchase materials for you at the right price and the facilities to install the work intelligently and with dispatch.

In the forty years we have been in business we have constructed over 8000 successful plants, and we are still doing work for nearly all of our old customers. We believe this will speak for both our ability and integrity.

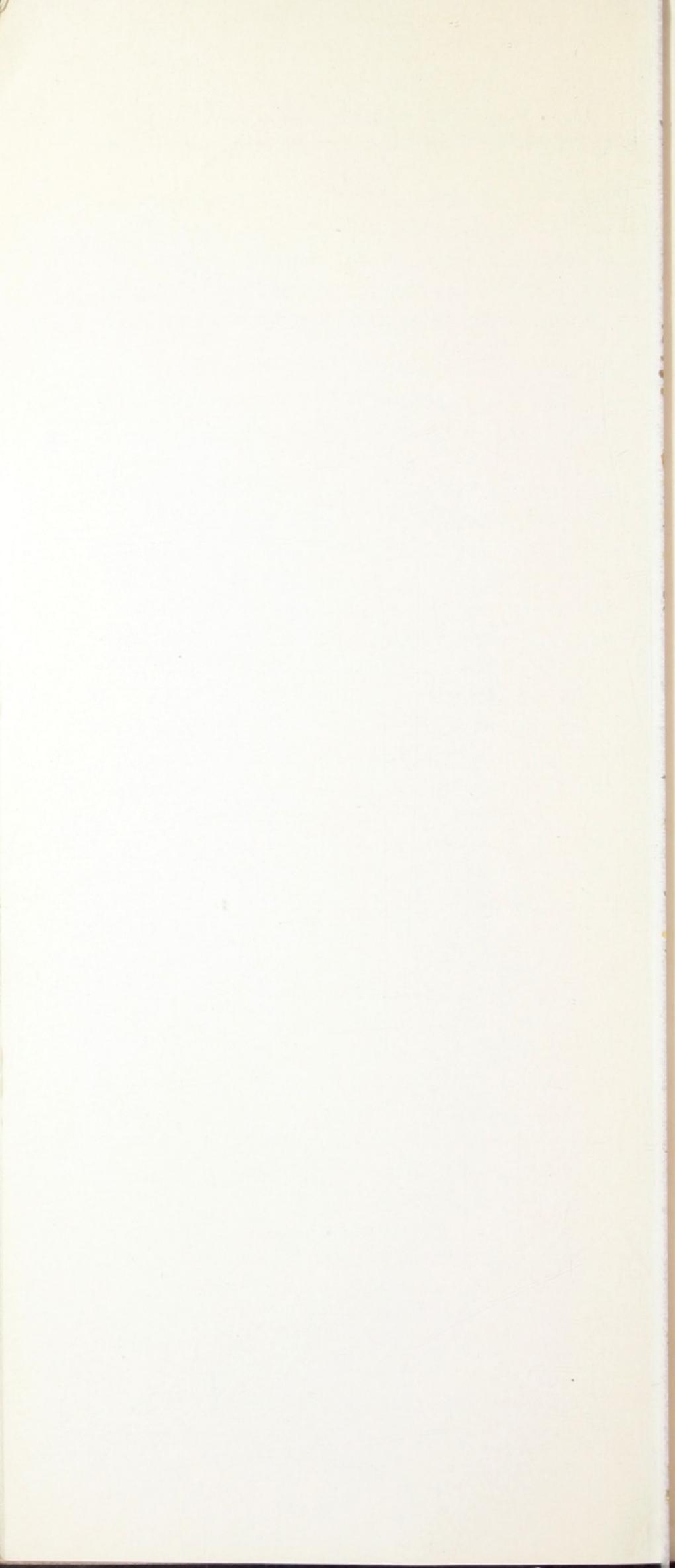
We have performed a large proportion of our work upon a "percentage" or "commission" basis. It has proven satisfactory to the buyer. The cost, in many instances, has been lower than the original estimate and the work has been more satisfactorily performed. The buyer has been at liberty to make omissions, additions or changes in the work as it progressed, resulting in considerable saving.

We often find that our clients placing orders with us on the "commission basis" require approximate or preliminary outside costs of the work contemplated. We willingly furnish these when desired.

Do not misunderstand us. We are perfectly willing at all times to estimate on work as

Always at Your Service—Day and Night

closely as we can and submit proposals to use as a basis for contract work, but we are presenting this to call to your attention the **advantages of the commission method compared with the disadvantages of the contract method.**





DAY, NIGHT AND HOLIDAY

Telephone Service

Prompt Service is Essential in
Emergency Work

You Can Reach Us
ANY HOUR OF THE DAY OR NIGHT

During Business Hours:

Bell, Locust 4576	Keystone, Race 3414
Locust 4577	Race 3415

Night, Sunday and Holiday Service:

Bell Telephones

Wayne 233

House of J. L. Moyer, President

Cynwyd 70-M

House of J. I. Boswell, Vice-President

Wyoming 10-77

House of C. F. Schoellhamer, Gen. Supt.

Woodland 39-17-J

House of G. J. Monahan, Supt. Plumbing De-

Woodland 35-36

House of T. L. Barker, Mgr. Electric Dept.